

MONTHLY WEATHER REVIEW,

MARCH, 1876.

WAR DEPARTMENT,

Office of the Chief Signal Officer.

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE

INTRODUCTION.

In compiling the present REVIEW, the following data have been made use of, viz: The charts, constructed from the simultaneous observations taken at one hundred and four Signal Service, United States Army, stations and fourteen Canadian stations, at 7:35 a. m., 4:35 p. m. and 11 p. m., Washington mean local time, and telegraphed to this office immediately afterward; monthly meteorological records of observations, taken at four hundred and forty-nine stations, including those from the Voluntary Observers, U. S. Naval Hospitals, U. S. Army Posts, Canadian stations and Signal Service stations; reliable newspaper extracts; special reports from various sections of the country; and Marine Records.

The most noticeable features for the month are: The large number of extensive and destructive storms; the excess of precipitation in all the districts but two; the low average temperatures except at the Pacific coast stations; the rising of the Mississippi river above the "danger line" from Cairo to some distance below Vicksburg, and the destructive floods in New England and portions of Illinois at the close of the month.

BAROMETRIC PRESSURE.

In General.—Upon chart No. II is represented the general distribution of the atmospheric pressure by the isobaric curves in black. Compared with March, 1874, the pressure for March, 1876, has averaged considerably higher in New York, New England, the Eastern British Provinces, and from Lake Superior to Dakota; slightly higher in the Southwest and along the Middle Atlantic coast; somewhat lower from southern Michigan, Ohio and West Virginia, westward to Nebraska, Kansas and northern Arkansas, and about the same in the South Atlantic and Eastern Gulf States. The same, compared with March, 1875, is greater from .04 to .10 of an inch from upper Michigan to Dakota, and nearly without any change thence southward over the interior of the Southern States and the Southwest, but along the South Atlantic coast it is slightly lower; in the Middle States from .03 to .09, in New England from .09 to .13, and on the Pacific coast from .07 to .16 of an inch lower. The explanation of these differences is to be found in the movement of the storm-centres. For the present month a larger number has been traced from the Pacific coast; they have passed somewhat southward of the Upper Lake region, and crossed the Middle States and New England. In the Southern States there has not been any decided change in their movements.

Areas of High Pressure.—These extensive areas of cold air are generally first observed somewhere between Washington Territory and Lake Superior. Thence they gradually extend southward over the Territories, and eastward until they reach Texas and the Mississippi valley. From that section their general direction is northeastward, disappearing, in advance of low pressure areas, beyond New England and the Eastern British Provinces.

No. I.—High pressure area No. VII, of February, under the influence of low pressure No. I, of this month, disappeared, except in Minnesota and Dakota; the barometer at Fort Garry, Manitoba, reading 30.72 on the morning of the 1st, and the thermometer -21° at Pembina. As the low pressure passed to the eastward this high pressure rapidly extended southward over the Territories to New Mexico and Texas on the 1st, with a light "norther" in the Southwest during the night. On the morning of the 2d the ridge of highest pressure could be traced from Minnesota south-southwestward to northern Texas. During the 2d and 3d it was felt in the Atlantic States having been central in the lower Ohio valley on the morning of